

PREVIOUS YEAR PAPER

CTET Paper II — 7 February 2026 (Set W) — Mathematics and Science

CTET · 7 February 2026

131 of the paper's 150 questions · +1 for a correct answer, -0 for a wrong one · 150 minutes

Left out of the original paper: 19 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

Questions from the Central Board of Secondary Education's paper of 7 February 2026. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/ctet/previous-year-papers/ctet-2026-paper-2-7-feb-set-w-maths-science/

Child Development and Pedagogy

2. A major developmental task during ____ is the search for identity—personal, sexual and occupational.

- (a) middle childhood
- (b) early childhood
- (c) adolescence
- (d) middle adulthood

Answer: (c)

3. Read the following statements : Assertion (A) : Children learn values and norms of the society in overt as well as covert ways. Reason (R) : Socialization is the simple process of passing on customs and rituals of the society. Choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) Both A and R are false.

Answer: (c)

4. As per Jean Piaget's theory of cognitive development, which of the following abilities distinguishes formal operational thinking from concrete operational thinking?

- (a) Abstract logic
- (b) Conservation
- (c) Object permanence
- (d) Symbolic play

Answer: (a)

5. A significant critique of Jean Piaget is that he failed to adequately consider the influence of _____ on development.
- (a) maturation
 - (b) culture
 - (c) experience
 - (d) activity

Answer: (b)

6. Which of the following is a correctly matched pair?
- (a) Punishment and Obedience orientation—Avoidance of bad consequences
 - (b) Good boy-Good girl orientation—Greatest good for greater numbers
 - (c) Law and Order orientation—Upholding principles of social justice for humanity
 - (d) Social Contract orientation—Consideration of perception of others

Answer: (a)

7. Jean Piaget and Lev Vygotsky are similar in their belief that
- (a) children are involved in the process of meaning making.
 - (b) language influences and determines thought.
 - (c) culture has a profound effect on the learning.
 - (d) development of children takes place in stage-like progression.

Answer: (a)

8. Lev Vygotsky proposed that
- (a) children are born 'unruly' and society needs to teach them social behaviours.
 - (b) children's thinking is 'quantitatively' different from adults.
 - (c) children's thinking is 'qualitatively' different from adults.
 - (d) children have a lot of potential which includes tasks they can do with the others' support.

Answer: (d)

9. Read the following statements : Assertion (A) : The purpose of administering intelligence tests and extended observation should be to compare children in specific domains and abilities. Reason (R) : Intelligence is an innate ability and cannot be nurtured. Choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) Both A and R are false.

Answer: (d)

10. A teacher who consciously takes examples of scientists of all genders in her middle school classroom is trying to—
- (a) break gender stereotypes.
 - (b) reinforce gender discrimination.
 - (c) enable gender identity.
 - (d) construct gender constancy.

Answer: (a)

11. Read the following statements : Assertion (A) : All girls are hardworking and sincere while boys are intelligent and dominating. Reason (R) : Two distinctive biological brains produce all differences in physical and cognitive skills as well as personalities and temperament in girls and boys. Choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) Both A and R are false.

Answer: (d)

12. Individual differences in learning preferences of students should be seen as—

- (a) abnormal parameter of their differing IQ levels.
- (b) cognitive abnormality among some children.
- (c) developmental deficits among some children.
- (d) normal depiction of diversity.

Answer: (d)

13. The kind of assessment in which a student's scores are compared with the average performance of other students is called

- (a) criteria-referenced.
- (b) format-referenced.
- (c) norm-referenced.
- (d) self-referenced.

Answer: (c)

14. Which of the following statements about classroom assessment are correct? (i) Assessments should influence the students' cognitive processes while they study. (ii) Assessments should serve as learning experiences in themselves. (iii) Assessments should create fear and stress among students to get them to learn. (iv) Assessments should be standardized and norm-referenced. Choose the correct option.

- (a) (i), (iii)
- (b) (i), (ii)
- (c) (ii), (iii), (iv)
- (d) (i), (ii), (iii), (iv)

Answer: (b)

15. Which of the following questions would promote higher-order critical and analytical thinking skills among the students?

- (a) Identify the assumptions underlying two newspaper articles depicting the same event.
- (b) Identify the nouns mentioned in a specific newspaper article.
- (c) Read the newspaper articles and make a list of new words.
- (d) Read the newspaper article and think of a suitable title.

Answer: (a)

16. Read the following statements : Assertion (A) : Students with poor writing abilities are often stereotyped by their teachers as 'intellectually disabled'. Reason (R) : Teachers tend to have implicit bias and hold assumptions about students' learning behaviours that can affect students' growth. Choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) Both A and R are false.

Answer: (a)

17. Which of the following is not a way to promote diversity in the classroom?

- (a) Incorporating a variety of perspectives and experiences in the curriculum
- (b) Encouraging students to express their unique identities and cultures
- (c) Adapting behaviour based on stereotyping students according to their backgrounds and cultures
- (d) Providing opportunities for students to interact with individuals from different backgrounds and cultures

Answer: (c)

18. Which of the following is the correct match of learning disability and challenge caused by it?

- (a) Dyscalculia—Impacts ability to read and language processing skills
- (b) Dysgraphia—Impacts fine motor skills and spelling
- (c) Dyslexia—Impacts ability to learn numbers and arithmetic operations
- (d) Dyspraxia—Impacts ability to see, hear and think properly

Answer: (b)

19. Students struggling with 'autism' show ease at

- (a) communication with strangers.
- (b) eye contact during conversation.
- (c) familiar and predictable routines.
- (d) rapid transitions between activities.

Answer: (c)

20. Which of the following statements is not correct about gifted children?

- (a) Children can be gifted at different levels and some can have some kind of disability also.
- (b) Children can be gifted in more than one kind of intelligence.
- (c) Gifted children are born with extraordinary abilities and potential that need to be nurtured.
- (d) Gifted children have lower sense of curiosity and poor imagination skills.

Answer: (d)

21. Error analysis by students

- (a) creates further gaps in students' understanding.
- (b) hinders metacognitive skills of students.
- (c) is a futile activity in process of learning.
- (d) supports students in retaining their learning.

Answer: (d)

22. Which of the following statements is correct regarding declarative knowledge and procedural knowledge?

- (a) Declarative knowledge emphasizes how to do something.
- (b) Declarative knowledge is also known as analytical knowledge.
- (c) Procedural knowledge is generally process-oriented in nature.
- (d) Procedural knowledge tells the factual knowledge about something.

Answer: (c)

23. Contents which require an extension or modification of existing cognitive structures take ____ time for learning and are retained for ____ duration.

- (a) long, long
- (b) long, short
- (c) short, short
- (d) short, long

Answer: (a)

24. Read the following statements : Assertion (A) : Teachers should encourage children to focus on questions such as "what is my learning goal and what do I need to do to get there". Reason (R) : When students understand how to self-assess their work performance, they can use this understanding to help themselves learn and progress. Choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) Both A and R are false.

Answer: (a)

25. In guided discovery approach of learning

- (a) learners are left on their own without any kind of intervention by teacher.
- (b) no prior planning or previous knowledge is required.
- (c) opportunities are provided to learners to construct knowledge for themselves.
- (d) teacher acts as a dictator and learners act as listeners.

Answer: (c)

26. Which of the following strategies is not effective while developing conceptual understanding in children?

- (a) Presenting a wide range of examples in diverse contexts
- (b) Presenting non-examples to show what the concept is not
- (c) Asking students to generate their own examples
- (d) Asking students to memorize the definition as it is

Answer: (d)

27. An active middle school classroom should be founded on the theoretical principles of

- (a) behaviourism
- (b) psychodynamism
- (c) social constructivism
- (d) psychoanalysis

Answer: (c)

28. Read the following statements : Assertion (A) : Empathy depends on the ability to understand that others have feelings and to gauge their feelings. Reason (R) : Emotions and cognition are not related to each other. Choose the correct option.

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) Both A and R are false.

Answer: (c)

29. A middle school teacher can enable students to become strategic self-motivated learners by—

- (a) encouraging students to develop their own cognitive knowledge and skills.
- (b) providing varied forms of reinforcement for every task completed.
- (c) dictating well-prepared answers to questions in the textbook.
- (d) stressing upon objective-type testing at the end of the term.

Answer: (a)

30. Which of the following exemplifies intrinsic motivation?

- (a) Motivation driven by external rewards
- (b) Motivation driven by personal interest or enjoyment of the task
- (c) Motivation driven by competition with others
- (d) Motivation driven by gaining the appreciation of others

Answer: (b)

Mathematics and Science

31. The greatest number that divides 87 and 123 leaving respectively 7 and 3 as remainders is :

- (a) 20
- (b) 36
- (c) 40
- (d) 80

Answer: (c)

34. The digit at units place of the square of a number is 2 more than the digit at units place of that number. Which of the following cannot be the digit at units place of the square of that number?

- (a) 4
- (b) 5
- (c) 6
- (d) 9

Answer: (b)

38. One of the factors of $5(2x - 4y) + 6(4x^2 + 16y^2 - 16xy) - 6$ is :

- (a) $2x - 4y - 3$
 - (b) $4x - 8y + 3$
 - (c) $3x - 6y + 1$
 - (d) $3x - 6y - 1$
- $5(2x - 4y) + 6(4x^2 + 16y^2 - 16xy) - 6$ (1) $2x - 4y - 3$ (2) $4x - 8y + 3$ (3) $3x - 6y + 1$ (4) $3x - 6y - 1$

Answer: —

40. When x is added to each of the numbers 4, 10, 16 and 24, then the numbers so obtained in this order are in proportion. What is the value of x ?

- (a) 10
- (b) 13
- (c) 16
- (d) 19

Answer: (b)

43. Which of the following measurements (in cm) cannot form the sides of a right triangle?

- (a) $2 \times 5, 6 \times 5, 6$
- (b) 12, 16, 20
- (c) $4 \times 5, 6, 7 \times 5$
- (d) 8, 16, 12

Answer: (d)

44. Which of the following letters does not have rotational symmetry?

- (a) H
- (b) O
- (c) E
- (d) N

Answer: (c)

45. Diagonals PR and QS of a parallelogram PQRS intersect at point O . If $OP = (x + y)$ cm, $OQ = 20$ cm, $OR = 16$ cm and $OS = (y + 7)$ cm, then the value of $(7x - y)$ (in cm) is :

- (a) 6
- (b) 8
- (c) 9
- (d) 13

Answer: (b)

48. Three metallic solid cubes of sides 8 cm, 6 cm and 10 cm are melted to form a single solid cube. The side of the new cube so formed is :

- (a) 24 cm
- (b) 20 cm
- (c) 18 cm
- (d) 12 cm

Answer: (d)

49. The mean of the median and mode of the observations 30, 61, 55, 56, 60, 20, 26, 45, 28 and 56 is

- (a) 52
- (b) 53
- (c) 55
- (d) 56

Answer: (b)

51. A teacher gives an image drawn on a screen to children and asks them to draw its enlarged and reduced size images. Which of the following should not be an objective of doing this exercise in a mathematics classroom?

- (a) To apply the concept of ratio and proportion in different situations
- (b) To provide practice for application of fractions
- (c) To provide scope for integrating arithmetic and geometry
- (d) To introduce the concept of congruency and similarity

Answer: (d)

52. Closed-ended questions in mathematics do not promote : A. Divergent thinking B. Convergent thinking C. Creativity D. Higher-order thinking skills Choose the correct option.

- (a) A and B
- (b) A, B and C
- (c) B, C and D
- (d) A, C and D

Answer: (d)

53. Which of the following should not be a part of assessment of students in mathematics?

- (a) Apply mathematical concepts learnt to solve problems related to daily life situations
- (b) Reason out mathematical facts
- (c) Recalling the definitions of mathematical terms
- (d) Use abstractions to perceive mathematical relationships

Answer: (c)

54. ____ was the first Indian mathematician who explained that the square root of a negative number does not exist.

- (a) Mahavira
- (b) Baudhayana
- (c) Aryabhatta
- (d) Ramanujan

Answer: (a)

55. When asked to arrange the decimal numbers 1×5 , 0×23 , 1×6 , 0×034 , 1×13 in ascending order, one of the students arranged them as 0×23 , 0×034 , 1×5 , 1×6 , 1×13 . Which among the following is most appropriate for the response of the student?

- (a) The student has arranged the decimal numbers in the correct order
- (b) The student has made a careless mistake by arranging the decimal numbers in descending order
- (c) Teacher should ask the student to recall the rule of ordering decimal numbers and then arrange them
- (d) The student has developed a misconception considering that decimal number as bigger number which has more digits in decimal part

Answer: (d)

56. A teacher asked the children to cut out six squares of 'one' unit each and then asked, "How many different shapes can you make using these squares? Which shape formed would have the maximum perimeter?" The least appropriate objective of this activity is

- (a) to engage children in group work
- (b) to provide opportunities for developing creativity and analytical skills
- (c) to assess children's learning about area and perimeter
- (d) to apply the formulae learnt in a new context

Answer: (a)

57. A child solved an equation $x + 7 = 15$ as $x + 7 - 7 = 15$ $x = 15$ The best remedial strategy for this child is

- (a) give a lot of problems on solving equations to the child
- (b) explain problems in simple language to the child
- (c) explain the concept of equality using alternate methods
- (d) ask the child to solve the same equation on the blackboard

Answer: (c)

58. According to the National Curriculum Framework, 2005, what are the important skills to be developed among learners while teaching arithmetic and algebra? A. Looking for patterns in the relationships B. Memorizing algebraic identities C. Seeing relationship between numbers D. Rigorous practice of writing algebraic notation Choose the correct option.

- (a) A, B and D
- (b) A and C
- (c) B and C
- (d) B and D

Answer: (b)

59. After teaching 'shapes' in Class VIII, a teacher planned a trip to historical places. Which of the following is the most appropriate reason for this?

- (a) Field trips are the recommendations of CBSE
- (b) Teacher has completed most of the syllabus, so she planned the field trip just to have fun
- (c) Shapes are an integral part of any architecture and such trips encourage connection across the disciplines
- (d) It would be a break from the routine teaching of mathematics class and an opportunity to improve students' communication skill

Answer: (c)

60. Uma, a mathematics teacher, asked a student, "How many edges are there in a cylinder?" The student answered, "Two". Uma should

- (a) give punishment to the student for wrong answer
- (b) praise the student for correct answer
- (c) draw picture of the cylinder on the blackboard and show the edges
- (d) give cylinder in the hands of that student and ask the question again

Answer: (d)

61. Fill in the blanks with the correct answer : At the onset of puberty, the size of ovaries in females A and produce B . In males, C is produced by testes. The production of these hormones is controlled by D .

- (a) A—reduces; B—estrogen; C—sex hormone; D—adrenal gland
- (b) A—enlarges; B—thyroxine; C—testosterone; D—thyroid gland
- (c) A—reduces; B—estrogen; C—testosterone; D—pituitary gland
- (d) A—enlarges; B—estrogen; C—testosterone; D—pituitary gland

Answer: (d)

62. A circuit comprising three identical bulbs and a switch is connected in different arrangements as given below. In which arrangement will the bulbs glow the brightest?

- (a) Arrangement A—All bulbs in series
- (b) Arrangement B—All bulbs in parallel
- (c) Arrangement C—Two bulbs in parallel connected in series with the third bulb
- (d) Arrangement D—Two bulbs in series connected in parallel with the third bulb

Answer: (b)

63. Read the following statements : Assertion (A) : Anodizing is a method to prevent metal from corrosion. Reason (R) : Anodizing is a process of coating iron with a layer of zinc. Choose the correct option.

- (a) Both A and R are true and R is the correct reason for A
- (b) Both A and R are true but R is not the correct reason for A
- (c) A is true but R is false
- (d) Both A and R are false

Answer: (c)

64. Why do silver articles turn black when kept in the open for a few days?

- (a) Due to reaction with oxygen in air
- (b) Due to reaction with hydrogen sulphide present in air
- (c) Due to reaction with nitrogen oxides present in air
- (d) Due to reaction with carbon monoxide present in air

Answer: (b)

66. Read the following statements : Step 1 : A few spoons of sugar are dissolved in water to prepare a concentrated sugar syrup. Step 2 : The sugar syrup is heated on low flame till it caramelizes. Choose the correct option.

- (a) Step 1 is a physical change and Step 2 is a chemical change
- (b) Step 1 is a chemical change and Step 2 is a physical change
- (c) Both Step 1 and Step 2 are physical changes
- (d) Both Step 1 and Step 2 are chemical changes

Answer: (a)

67. The ion of an element has two positive charges. The mass number of the atom is 27 and the number of neutrons is 14. What is the number of electrons in the ion?

- (a) 13
- (b) 10
- (c) 11
- (d) 15

Answer: (c)

68. A ray of light travels from air into three media A, B and C with different optical densities. Refer to the table given below and identify X, Y, Z and W :
Change in speed Change in frequency Change in wavelength of light of light of light
Air to medium A X Y Decreases Air to medium B Increases No change
Z Air to medium C Remains same W No change Choose the correct option.

- (a) X—Increases; Y—Decreases; Z—Decreases; W—Increases
- (b) X—Increases; Y—Increases; Z—Increases; W—Increases
- (c) X—Decreases; Y—Remains unchanged; Z—Increases; W—Remains unchanged
- (d) X—Decreases; Y—Decreases; Z—Increases; W—Remains unchanged

Answer: (c)

69. Read the following statements : Situation A : Growth and branching of roots in the A-horizon and B-horizon is advantageous for absorption of water and minerals. Situation B : C-horizon is rich in humus which makes soil soft and porous. Choose the correct option.

- (a) Only Situation A is true
- (b) Only Situation B is true
- (c) Both Situations A and B are true
- (d) Both Situations A and B are false

Answer: (a)

70. You are provided with China rose indicator. In the first test tube, you add two drops of solution A and observe no change in colour of the solution. In the second test tube, you add two drops of solution B and get green colour. In the third test tube, you add two drops of solution C and get magenta (dark pink) colour. Identify the nature of solutions A, B and C.

- (a) A—Basic; B—Neutral; C—Acidic
- (b) A—Acidic; B—Basic; C—Neutral
- (c) A—Neutral; B—Basic; C—Acidic
- (d) A—Neutral; B—Acidic; C—Basic

Answer: (c)

71. Read the following statements : Statement 1 : An object can have non-zero mechanical energy but zero momentum. Statement 2 : An object can do zero work even if the force acting on the object is non-zero. Choose the correct option.

- (a) Statement 1 is true but Statement 2 is false
- (b) Statement 1 is false but Statement 2 is true
- (c) Both Statements 1 and 2 are true
- (d) Both Statements 1 and 2 are false

Answer: (c)

72. Two identical metal containers are taken. Container A is painted black and the container B is painted white on the outside surface. Step 1 : Both the containers are kept in direct sunlight. Step 2 : After few hours, both the containers are kept in a shady area. Which of the following will be observed?

- (a) Container A will gain heat faster than container B whereas container B will lose heat faster than container A
- (b) Container B will gain heat faster than container A whereas container A will lose heat faster than container B
- (c) Container A will gain as well as lose heat faster than container B
- (d) Container B will gain as well as lose heat faster than container A

Answer: (c)

73. Why is it difficult to cut with a blunt knife as compared to a sharp one?

- (a) Pressure increases
- (b) Force decreases
- (c) Area of contact increases
- (d) Area of contact decreases

Answer: (c)

74. Which of the following can be used to increase the strength of an electromagnet?

- (a) Increasing the flow of current
- (b) Decreasing the number of turns of coil
- (c) Using a plastic core
- (d) Using an aluminium core

Answer: (a)

75. Which of the following is a set of organs that do not contribute to the digestive process?

- (a) Buccal cavity, oesophagus, rectum
- (b) Oesophagus, large intestine, rectum
- (c) Small intestine, large intestine, rectum
- (d) Large intestine, small intestine, oesophagus

Answer: (b)

76. Read the following statements : A : Earthworm breathes through its skin and does not have lungs. B : Tadpole breathes through gills and does not have lungs. C : Snake breathes through its skin and does not have lungs. Choose the correct option.

- (a) A and B are true
- (b) B and C are true
- (c) A and C are true
- (d) Only A is true

Answer: (a)

77. Read the following, and identify X, Y, Z and W respectively : X : The part which produces pollen grains Y : The part where the female gamete is formed Z : The female reproductive part where pollen grains germinate W : The part of the flower which attracts insects Choose the correct option.

- (a) Pistil, stigma, ovary, sepal
- (b) Anther, pistil, ovary, sepal
- (c) Anther, ovary, stigma, petals
- (d) Stamen, ovary, ovule, petals

Answer: (c)

78. Read the following statements : Assertion (A) : Sewage treatment is essential to prevent diseases and deaths. Reason (R) : Sewage is a solid waste which causes water pollution and soil pollution. Choose the correct option.

- (a) Both A and R are true and R is the correct reason for A
- (b) Both A and R are true but R is not the correct reason for A
- (c) A is true but R is false
- (d) A is false but R is true

Answer: (c)

79. Read the following statements : A : Spiracles and stomata are pores through which insects and leaves exchange gases respectively. B : Spiracles in an insect are more in number as compared to stomata in a leaf. C : Both stomata and spiracles are present on the lower surface of leaves and insect's body respectively. Choose the correct option.

- (a) A and B are true
- (b) B and C are true
- (c) A and C are true
- (d) Only A is true

Answer: (d)

80. Fill in the blanks with the correct answer : A pushes the blood into pulmonary artery. B take deoxygenated blood from the heart to the lungs. C return oxygenated blood from the lungs to the heart. From the left atrium, blood flows to the D . E receives blood from different parts of the body.

- (a) A—Left ventricle; B—Pulmonary veins; C—Pulmonary arteries; D—right auricle; E—Right ventricle
- (b) A—Left ventricle; B—Pulmonary arteries; C—Pulmonary veins; D—right auricle; E—Right ventricle
- (c) A—Right ventricle; B—Pulmonary arteries; C—Pulmonary veins; D—left ventricle; E—Right auricle
- (d) A—Right ventricle; B—Pulmonary veins; C—Pulmonary arteries; D—left ventricle; E—Right auricle

Answer: (c)

81. Read the following statements : Assertion (A) : Hypotheses become theories which in turn become laws. Reason (R) : Scientific laws such as Law of gravitation are absolute. Choose the correct option.

- (a) Both A and R are true and R is the correct reason for A
- (b) Both A and R are true but R is not the correct reason for A
- (c) A is true but R is false
- (d) Both A and R are false

Answer: (d)

83. Which of the following cannot be regarded as a 'testable question'?

- (a) What is the effect of cigarette smoke on lungs?
- (b) How does flu effect human immune system?
- (c) When will fossil fuels run out?
- (d) What does an earthworm eat?

Answer: (c)

84. Read the excerpt given below : A teacher arranged a fun trip to Qutub Minar for her learners. The learners saw the iron pillar in the Qutub complex. The teacher asked the learners to note down the details displayed about the pillar that is 1600 years old and rust-resistant. She also asked them to write those iron items in their house, which are being used regularly and are rusted and think of causes of rusting and ways to prevent rusting. Which of the following process skills are being developed through the above-mentioned activity?

- (a) Measurement, classification, inference
- (b) Classification, observation, measurement
- (c) Inference, classification, observation
- (d) Classification, observation, hypothesis

Answer: (d)

85. Which of the following does not satisfy 'process validity' of science curriculum as recommended by the National Curriculum Framework, 2005?

- (a) Students investigating the acidity and basicity of different household items
- (b) Students discussing the possible outcomes of connecting a piece of rubber, hairpin and lead to two open ends of an electric circuit
- (c) Students involved in developing hypothesis for germination of seeds kept in a dry cotton cloth and moist cotton
- (d) Students involved in making a list of elements given in the periodic table

Answer: (d)

86. The science textbooks often include interesting anecdotes from the past. One such story is that of accidental discovery of silk in China and the role of travellers and traders in introducing silk to the rest of the world through the 'Silk Route'. What objectives of science teaching-learning are being fulfilled by including the above in the textbook? A. To develop an understanding of nature of science B. To develop a historical perspective C. To develop an appreciation of how science is socially and culturally embedded D. To reduce the burden of science content by including fun stories Choose the correct option.

- (a) A, C and D
- (b) B, C and D
- (c) A, B and C
- (d) A, B and D

Answer: (c)

87. Which of the following tasks would not contribute to developing scientific temper among students?

- (a) Providing hands-on experiences to students
- (b) Emphasizing the historical aspects of the development of scientific concepts
- (c) Reading out the tenets of nature of science
- (d) Encouraging the students to ask questions

Answer: (c)

88. Which of the following is the most appropriate strategy to introduce physical properties of metals and non-metals to Grade VII learners as per the inquiry-based approach?

- (a) List the differences between the physical properties of metals and non-metals on the blackboard
- (b) Initiate a discussion on students' everyday experiences of using metallic and non-metallic substances
- (c) Define the terms 'sonorous', 'boiling point' and 'melting point'
- (d) Give a set of materials to students and ask them to deduce the properties of metals and non-metals

Answer: (d)

90. Before beginning to formally teach a chapter on 'force' in Class VI, a teacher holds a discussion in which she asks children to imagine what would they do if they wish to keep a ball rolling on the ground for very long distances. How can she most suitably use the children's responses? A. To evaluate students B. To assess students' preconceptions C. To determine the pedagogical strategy to be adopted to teach the concept D. To enable students to define force Choose the correct option.

- (a) A and B
- (b) B and C
- (c) C and D
- (d) A and C

Answer: (b)

| Language I (English)



Passage — for questions 91–97

Physical health affects the mind and vice versa. Which of the two is the more important is like asking the age-old question : what comes first, the chicken or the egg. For our present subject, let us be clear that a sound mind in a sound body is a prerequisite for high efficiency and good quality work in the office, factory or field, which leads to a sense of achievement and fulfilment.

Our health is, of course, important not only to us, but also to our families and even to our employers. No wonder then that companies everywhere have a stake in the health and fitness of their employees and are willing to spend considerable money towards this purpose. Japanese companies particularly excel in this and the more successful among them start off the day with a body-bending and stretching session and even singing the company song designed to promote loyalty and motivation among the workforce! This is considered an important factor contributing to high productivity and quality. Here is a lesson which has been emulated elsewhere in the world and could work wonders in India. It is estimated that some 20,000 American firms have established in-house health clubs. Typical of these is the soft drink manufacturer Pepsi Cola which has spent about \$2 million in setting up a health club at its head office in New York State. Such expenditure has proved to be a wise investment in achieving better efficiency and higher productivity. It has, indirectly, also helped reduce the premium on the health insurance of its staff. This business has grown so large that hundreds of consultancies have sprung up for the management of health clubs and fitness centres. In some cases, there is a nominal contribution by the employees on the premise that this way they will value and use the facilities all the more. Some insurance companies have teamed up with employers in such ventures as better health contributes to a longer life and hence more premium! Though many firms in India have generous medical schemes, the movement towards health clubs and the like is yet to gain momentum.

91. What is the prerequisite for high effect and good quality work?

- (a) Good quality office
- (b) Health club
- (c) Exercising and stretching
- (d) Sound mind in a sound body

Answer: (d)

92. Japanese companies ensure loyalty and motivation by making their workers

- (a) start off the day with exercising
- (b) drink healthy drinks
- (c) sing the company's song
- (d) join health clubs

Answer: (c)

93. Why do companies have health clubs?

- (a) They attract more workforce
- (b) They attract profit to the company
- (c) They help in better efficiency and high productivity of the workers
- (d) Health insurance companies can tie up with these health clubs CEF–26–II (W)/P2 61 [P.T.O.

Answer: (c)

94. 'The movement towards health clubs is yet to gain momentum in India' signifies that
- (a) health clubs are getting popular in Indian companies
 - (b) insurance companies are getting good premium due to health clubs
 - (c) health clubs in Indian companies have not yet become popular
 - (d) due to health clubs, many consultancies have opened up

Answer: (c)

95. What is directly affected by physical health?
- (a) Mind
 - (b) Business
 - (c) Efficiency
 - (d) Insurance premium

Answer: (a)

96. Which one of the following words is opposite in meaning to the word 'nominal'?
- (a) Above-mentioned
 - (b) Cursory
 - (c) Simple
 - (d) Substantial

Answer: (d)

97. Which one of the following words is nearest in meaning to the word 'prerequisite' ?
- (a) Unnecessary
 - (b) Required
 - (c) Optional
 - (d) Secondary

Answer: (b)

Passage — for questions 100–105

Your pretty bird in a gilded cage
Flutters its sorrowful wings
But there's never a cage-bird yet could
sing
As my bird sings. He's little and brown and wild and shy,
But free to build and thrive,
Your poor bit
thing behind its bars
Is only half alive!
My bird sings out with a true wood-note,
Your pipes of sorrowful
things,
And never, now, may he learn the song
That my bird sings. Never, now, may he wheel and soar
With the sunshine on his wings,
O, a bird in a cage is a crippled thing
But my bird sings!

100. The speaker says that the cage-bird flutters its sorrowful wings. The wings are being described as 'sorrowful' because
- (a) the wings are broken
 - (b) the bird is sad as it is caged
 - (c) the bird can't sing
 - (d) the bird is hungry

Answer: (b)

101. The speaker's bird can do a number of things. It is because

- (a) the bird is talented
- (b) the bird is caged
- (c) the bird is free
- (d) the bird is sorrowful

Answer: (c)

102. The caged bird is described as 'a crippled thing' because

- (a) its one leg is broken
- (b) it is not free to fly and soar
- (c) it is poor
- (d) it is wild

Answer: (b)

103. Which poetic device is used in the expression 'sorrowful wings' ?

- (a) Metaphor
- (b) Simile
- (c) Transferred epithet
- (d) Personification

Answer: (c)

104. What is the theme of the poem?

- (a) The caged bird lives a fruitful life
- (b) The birds should be kept in a cage
- (c) The birds should be given good food
- (d) Birds living in the open enjoy their lives

Answer: (d)

105. "But my bird sings!" denotes that

- (a) my bird sings sweetly
- (b) my bird is free
- (c) my bird doesn't feel free
- (d) my bird has regained her voice CEF-26-II (W)/P2 63 [P.T.O.

Answer: (b)

106. ____ is concerned with the aspects of meaning in language.

- (a) Phonetics
- (b) Semantics
- (c) Syntax
- (d) Morphology

Answer: (b)

107. Which of the following is not the principle of language learning?

- (a) Learning a language involves mastery of both skill and knowledge
- (b) Learners may vary in their preferred approaches to learning
- (c) Language is a tool for communication
- (d) Language is learnt through memorization of structures/rules of grammar

Answer: (d)

108. A teacher of Grade 6 writes a word in the centre of the blackboard, and asks the learners to brainstorm all the words they can think of which are connected to the central word. The major objective of this activity is

- (a) enhancing writing skills
- (b) improving vocabulary of learners
- (c) understanding grammar
- (d) enhancing reading skills

Answer: (b)

109. Read the following statements : Assertion (A) : Delaying the learning of languages in the early years makes it more difficult for children to acquire new languages. Reason (R) : Early years of the child are sensitive periods for language acquisition. Choose the correct option.

- (a) Both A and R are true and R is a correct explanation of A
- (b) Both A and R are true but R is not a correct explanation of A
- (c) A is not true but R is true
- (d) A is true but R is not true

Answer: (a)

110. One of the key principles of National Curriculum Framework for Foundational Stage (2022) with respect to multilingualism is

- (a) multilingual nature of a classroom acts as a barrier in effective curriculum transaction
- (b) children are not able to pick up multiple oral languages in the early years
- (c) multilingualism has both cognitive and societal/cultural benefits
- (d) children must be helped to unlearn their home language and focus of the school must shift on learning the language of the school

Answer: (c)

111. In some of the speech communities, two different varieties of language coexist, each with a distinct range of social function. This situation is described as

- (a) code mixing
- (b) register
- (c) diglossia
- (d) dialect

Answer: (c)

112. Children work in pairs. A text is divided in half. One child reads their text for the partner which the other child writes. Two of them work out the whole text. This activity is called

- (a) running dictation
- (b) word web
- (c) partial dictation
- (d) storytelling

Answer: (c)

113. Which of the following statements is not true of study about the literary texts in language classroom?

- (a) Literary texts should be used to teach grammar.
- (b) Literary texts are cultural inputs for language learning.
- (c) Literary texts develop critical thinking and reflection.
- (d) Literary texts are for appreciation and enjoyment.

Answer: (a)

114. Naveen of Class VI struggles with reading the text. The teacher gives him simpler text to read. She conducts shared reading sessions for him. The support provided by the teacher is called

- (a) reading readiness
- (b) scaffolding
- (c) brainstorming
- (d) ice breaking

Answer: (b)

115. Which approach to language teaching believes 'language is a habit'?

- (a) Audiolingualism
- (b) Communicative language teaching
- (c) Natural approach
- (d) Cooperative language learning

Answer: (a)

116. A child reads an unseen passage for which he is expected to answer the questions that follow. This type of reading is referred to as

- (a) scanning
- (b) exclusive reading
- (c) skimming
- (d) extensive reading

Answer: (a)

117. Teacher shows five pictures to the students and asks them to write story based on these pictures. This is an example of

- (a) show and tell
- (b) jigsaw dictation
- (c) shared reading
- (d) creative writing

Answer: (d)

118. Which of the following is the characteristic of performance-based assessment in language?

- (a) Multiple-choice questions
- (b) Non-interactive performance
- (c) Decontextualized test items
- (d) Contextualized communicative tasks

Answer: (d)

119. Read the following statements : A : Reading is just to understand letter-sound relationships and pronounce the words correctly. B : Reading is decoding symbols to arrive at meaning. Choose the correct option.

- (a) Both A and B are true
- (b) A is true but B is false
- (c) B is true but A is false
- (d) Both A and B are false

Answer: (c)

120. A teacher has to assess listening skill of her students. Which of the following activities can she select as a listening assessment?

- (a) Rating the children on their oral presentation
- (b) Teacher tells a story and after that asks comprehension-based questions
- (c) Teacher asks the children to read a story and after that asks comprehension-based questions
- (d) Teacher gives vocabulary-based tasks

Answer: (b)

Language II (English)

Passage — for questions 121–128

One morning, the Emperor of China was feeling tired and sleepy. He had a lot of work to do but he could not keep his eyes open. "Perhaps I'm sick," he said to his servant. "Get my doctor!" When the doctor arrived, the Emperor said, "I have many things to do today, but I can't keep my eyes open. Can you help me?" The doctor opened his bag and took out a small box. There were some dry, dark leaves inside the box. He gave them to the Emperor and asked him to chew them. "They will help you. They are called tea leaves," said the doctor. The Emperor looked at the tea leaves; then he put them in his mouth and began to chew them. They didn't taste nice at all. The Emperor refused to have them and became angry at the doctor. He asked the doctor to leave else he would chop his head. Just as the doctor was leaving, two servants came into the room. They were carrying the Emperor's bath. It was full of hot water. Some of the tea leaves that the doctor was carrying fell into the hot water and the water smelled wonderful. The Emperor asked his servant to bring a cup of hot water. When the servant brought a cup of hot water, the Emperor put a few tea leaves in the water. It became a beautiful golden colour and smelt flavourful. The Emperor tasted the water. There was a big smile on his face. Then he drank up all the water. A few minutes later, he stopped feeling sleepy. He was fully awake, and he felt youthful and strong again. The Emperor smiled at the doctor and praised him for his cleverness. He ordered his servant to give him a cup of that wonderful drink every morning. Since that day, people have grown tea in China, India and in other parts of the world.

121. Why did the Emperor call the doctor one morning?

- (a) He wanted to eat some medicinal leaves
- (b) He was feeling tired and sleepy
- (c) He wanted the doctor to give him some hot water
- (d) He wanted to discuss about his health with the doctor

Answer: (b)

122. The Emperor was angry because

- (a) the tea leaves were covered with mud
- (b) he couldn't chew the tea leaves
- (c) the tea leaves weren't tasty
- (d) the doctor gave him something that was inedible

Answer: (c)

123. Read the following statements and write which of the options given below is correct : A. As he was leaving the Emperor's room, the doctor dropped some tea leaves into the Emperor's bathwater on purpose. B. The Emperor tasted the hot tea water and soon he started feeling sleepy.

- (a) Only A is correct
- (b) Only B is correct
- (c) Both A and B are correct
- (d) Both A and B are incorrect

Answer: (d)

124. The doctor gave the Emperor some _____ to help him stay _____.

- (a) neem leaves, awake
- (b) giloy leaves, fit
- (c) tea leaves, awake
- (d) tea leaves, sleepy

Answer: (c)

125. Which one of the following words is nearest in meaning to the word 'youthful' ?

- (a) Elderly
- (b) Adult
- (c) Experienced
- (d) Young

Answer: (d)

126. Which one of the following words is opposite in meaning to the word 'flavourful' ?

- (a) Yummy
- (b) Nice
- (c) Bland
- (d) Appetizing

Answer: (c)

128. Which of the following statements is not true?

- (a) When the servant brought the cup of hot water, the Emperor put some tea leaves into it.
- (b) The Emperor tasted the water.
- (c) There was a smile on his face.
- (d) After drinking it, he started feeling weak and lifeless.

Answer: (d)

Passage — for questions 129–135

Legends will tell you that flamingoes are no ordinary visitors to Kachchh. They were the honoured guests of King Lakho and he had forbidden the hunting of flamingoes, which came to Kachchh from various parts of the world every year to breed. For centuries, the region had been a haven for the migratory bird. Today, Flamingo City, an island in the middle of the Rann of Kachchh, known the world over as one of the biggest breeding grounds of the Greater Flamingo, is strewn with bodies of hundreds of flamingo chicks. The parents of these chicks have fled the island due to lack of food. Zooplanktons, algae and the small fish that these birds survive on are dying due to a sudden increase in the salinity of the Rann waters. One can even see dead fish floating. Flamingoes need salt-encrusted, damp mud to build nests. The place where they build their nests has to be inaccessible to predatory cats and birds. It should also have sufficient food. The right mix of sweet and brackish water in the Rann is crucial for the proliferation of planktons and algae that the flamingoes feed on. Faced with starvation, flamingoes have fled the island leaving their chicks to fend for themselves. Till date, around a thousand flamingoes have died.

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Maharaj Kumarshi Himmatsinghji, a member of the royal family of Kachchh and an expert on the birds of Kachchh, traces the problem of increased salinity in the Rann waters to the construction of dams on rivers that flow into the region. He emphasises that efforts should be made to ensure that at least some water flows into the Rann. In fact, over the years, the number of flamingoes coming to the island has decreased because of the change in salinity of the Rann water. In 1945, Salim Ali, the late ornithologist, had found 5 lakh birds on the island. Since then, the number has not gone above 2.2 lakh. However, the studies carried out on the Flamingo City so far cannot be taken as 100 percent accurate.

129. The flamingoes are not ordinary visitors to Kachchh as

- (a) they come from Australia
- (b) they are very beautiful birds
- (c) they have medicinal value
- (d) they have been the honoured guests of King Lakho

Answer: (d)

130. Flamingo City is known

- (a) as a hunting ground of flamingoes
- (b) as one of the biggest breeding grounds of the Greater Flamingoes
- (c) for its beauty
- (d) as the biggest island in the world

Answer: (b)

131. What has caused increased salinity in the Rann of Kachchh?

- (a) Arrival of flamingoes
- (b) Arrival of a large number of tourists
- (c) Construction of dams on rivers that flow into the region
- (d) A large number of hunting expeditions

Answer: (c)

132. Which one of the following words, as used in the passage, is similar in meaning to the phrase 'unable to be reached'?

- (a) Visitors
- (b) Inaccessible
- (c) Migratory
- (d) Proliferation

Answer: (b)

133. Which one of the following words is opposite in meaning to the word 'destruction'?

- (a) Honoured
- (b) Breeding
- (c) Starvation
- (d) Construction

Answer: (d)

135. Which part of the following sentence contains an error? The right mix of / sweet and brackish / water in the Rann are crucial A B C / for the proliferation of algae. D

- (a) B
- (b) D
- (c) C
- (d) A

Answer: (c)

136. The space between what a learner can do with assistance and what they can do in collaboration with adults or more capable peers is termed as

- (a) level of maturity
- (b) zone of proximal development
- (c) zone of achievement
- (d) distance learning

Answer: (b)

137. An impairment of language function due to localized cerebral damage which leads to difficulty in understanding and/or producing linguistic forms is called

- (a) aphasia
- (b) dyslexia
- (c) dyscalculia
- (d) dysarthria

Answer: (a)

138. The process by which the language is passed from one generation to another is called

- (a) cultural transmission
- (b) productivity
- (c) arbitrariness
- (d) displacement

Answer: (a)

139. Between 12–18 months, children begin to produce a variety of recognizable single-unit utterances. This period, in which single terms are uttered for everyday objects, is called

- (a) cooing
- (b) telegraphic speech
- (c) holophrastic stage
- (d) babbling

Answer: (c)

140. Read the statements given below on reading and writing skills : A : The understanding of and ability to read also affects the ability to write. B : Reading and writing are separate processes and develop independent of each other. Choose the correct option.

- (a) Both A and B are correct
- (b) A is correct but B is incorrect
- (c) Both A and B are incorrect
- (d) A is incorrect but B is correct

Answer: (b)

141. All languages have certain common properties. These are called

- (a) diglossia
- (b) language universals
- (c) register
- (d) dialect

Answer: (b)

142. Acceptance of linguistic diversity in a class w

- (a) hinder in attaining language fluency
- (b) destroy the confidence of children leading to decreased imagination and creativity
- (c) have no impact on the language learning
- (d) boost up the confidence of children leading to increased imagination and creativity

Answer: (d)

143. Which of the following is not the characteristic of print awareness as part of emergent literacy?

- (a) Handling a book
- (b) Recognizing difference between letters and words
- (c) Reading is done from left to right and top to bottom
- (d) Starting to read full sentences CEF–26–II (W)/P2 73 [P.T.O.

Answer: (d)

144. Given below are the learning outcomes for reading skill at foundational stage : A. Reads short passages accurately and fluently with appropriate intonation, pauses and voice modulation B. Reads a few sentences of familiar words with accuracy C. Reads short passages accurately with appropriate intonation and pauses Arrange them in order of progression.

- (a) A, B, C
- (b) B, C, A
- (c) A, C, B
- (d) C, A, B

Answer: (b)

145. Which of the following is not the part of extensive listening?

- (a) Listening for the gist
- (b) Listening for a main idea
- (c) Making inferences
- (d) Listening for certain facts and information

Answer: (d)

146. Which of the following tasks cannot be used for assessment of reading skill?

- (a) Read aloud
- (b) Multiple-choice questions based on the text read
- (c) Picture-cued word identification
- (d) Storytelling session by the teacher

Answer: (d)

147. Which of the following statements correctly describes running dictation?

- (a) Students hear or read different parts of a text, then exchange information with others to complete the task.
- (b) Children work in pairs. A text is divided in half. One child reads their text for the partner which the other child writes. Two of them work out the whole text.
- (c) Children work in pairs. The runner runs to see the text and dictate to the partner. The partner writes the text.
- (d) Teacher dictates the word/text to the class and students note it.

Answer: (c)

148. "A child is born with the innate capacity to acquire language." This idea of language acquisition is supported by

- (a) nativist
- (b) cognitivist
- (c) social interactionist
- (d) behaviourist

Answer: (a)

149. In process writing approach, the element of the writing process during which writers formally share their work with the wider audience refers to

- (a) drafting
- (b) publishing
- (c) editing
- (d) revising

Answer: (b)

150. For dealing with difficult words in the text, a language teacher first converts the words into mother tongue and then asks the students to memorize them. She is using

- (a) grammar-translation method
- (b) direct method
- (c) structural approach
- (d) communicative approach

Answer: (a)



Answer key

Answer key from the Central Board of Secondary Education's official answer key for this sitting. "—" means the key gave none.

Child Development and Pedagogy

2	(c)	3	(c)	4	(a)	5	(b)	6	(a)	7	(a)	8	(d)	9	(d)
10	(a)	11	(d)	12	(d)	13	(c)	14	(b)	15	(a)	16	(a)	17	(c)
18	(b)	19	(c)	20	(d)	21	(d)	22	(c)	23	(a)	24	(a)	25	(c)
26	(d)	27	(c)	28	(c)	29	(a)	30	(b)						

Mathematics and Science

31	(c)	34	(b)	38	—	40	(b)	43	(d)	44	(c)	45	(b)	48	(d)
49	(b)	51	(d)	52	(d)	53	(c)	54	(a)	55	(d)	56	(a)	57	(c)
58	(b)	59	(c)	60	(d)	61	(d)	62	(b)	63	(c)	64	(b)	66	(a)
67	(c)	68	(c)	69	(a)	70	(c)	71	(c)	72	(c)	73	(c)	74	(a)
75	(b)	76	(a)	77	(c)	78	(c)	79	(d)	80	(c)	81	(d)	83	(c)
84	(d)	85	(d)	86	(c)	87	(c)	88	(d)	90	(b)				

Language I (English)

91	(d)	92	(c)	93	(c)	94	(c)	95	(a)	96	(d)	97	(b)	100	(b)
101	(c)	102	(b)	103	(c)	104	(d)	105	(b)	106	(b)	107	(d)	108	(b)
109	(a)	110	(c)	111	(c)	112	(c)	113	(a)	114	(b)	115	(a)	116	(a)
117	(d)	118	(d)	119	(c)	120	(b)								

Language II (English)

121	(b)	122	(c)	123	(d)	124	(c)	125	(d)	126	(c)	128	(d)	129	(d)
130	(b)	131	(c)	132	(b)	133	(d)	135	(c)	136	(b)	137	(a)	138	(a)
139	(c)	140	(b)	141	(b)	142	(d)	143	(d)	144	(b)	145	(d)	146	(d)
147	(c)	148	(a)	149	(b)	150	(a)								